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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,915	04/11/2001	Masami Tsukamoto	684.3179	8192

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EXAMINER

BROWN, KHALED

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 12/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/829,915

Applicant(s)

TSUKAMOTO, MASAMI

Examiner

Khaled Brown

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 45-76 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 45-76 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 45-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujie et al (US 5696623) in view of Tokuda et al (5995263).

Re clm 45: Fujie et al discloses an exposure apparatus (Fujie et al Fig 6b) for illuminating a pattern (Fujie et al 13) with light from a light source (Fujie et al 20) and for exposing a predetermined surface (Fujie et al 16) with light from the pattern, said apparatus comprising: a projection optical system (Fujie et al Fig 1) for projecting the pattern onto the predetermined surface, said projection optical system having at least one optical element (Fujie et al L9) having optical surfaces (Fujie et al top and bottom surface of lens); and gas supplying means (Fujie et al P in, H9) for locally supplying a gas (Fujie et al Col 5 line 12) to said at least one optical element, wherein said gas supplying means blows the gas toward one of the optical surfaces (Fujie et al bottom surface) of said at least one optical element, which is closest to the predetermined surface, from the predetermined surface side. However, Fujie et al does not disclose the gas supplying means directly blows the gas toward one of the optical surfaces of the at least one optical element. Tokuda et al discloses that a gas supplying means (Tokuda

Art Unit: 2851

et al 32Aa) should directly blow gas toward an optical surface (Tokuda et al 15a) of an optical element (Tokuda et al 15) because it assists in maintaining an adjusted temperature on the surface of the optical element (Tokuda et al Col 7 lines 15-30).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the gas supplying means of Fujie et al directly blow gas toward the optical surface of the optical element of Fujie et al because it would assist in maintaining an adjusted temperature on the surface of the optical element as disclosed by Tokuda et al.

Re clm 61: Fujie et al discloses the claimed invention as noted above. However, Fujie et al does not disclose that the gas supply means produces a laminar gas flow. Tokuda et al discloses that a gas flow (Fig 12 gas produced by element 130) over the surface of a lens (15A) should be a laminar gas flow (shown in Fig 12) to avoid air fluctuation (Col 2 line 37). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the gas supply means of Fujie et al provide a laminar gas flow to avoid air fluctuation as taught by Tokuda et al.

Re clm 46,54,62,70: a container (Fujie et al 2) isolating from a surrounding ambience (Fujie et al Outside 2).

Re clms 47,55,64,72: a cover (Fujie et al 1 functions as a cover)

Re clms 64,67,75: a container (Fujie et al 2) and a cover (Fujie et al 1 functions as a cover)

Re clms 48,51,56,59,63,71: a plurality of gas supplying ports (Fujie et al Pa, Pb)

Re clms 49,57,65,73: adjusting means (Tokuda et al 31)

Art Unit: 2851

Re clms 50,58,66,74: temperature-adjusting means (Fujie et al 215)

Re clm 53: Fujie et al discloses an exposure apparatus (Fujie et al Fig 6b) for illuminating a pattern (Fujie et al 13) with light from a light source (Fujie et al 20) and for exposing a predetermined surface (Fujie et al 16) with light from the pattern, said apparatus comprising: a projection optical system (Fujie et al Fig 1) for projecting the pattern onto the predetermined surface, said projection optical system having at least one optical element (Fujie et al L9) having optical surfaces (Fujie et al top and bottom surface of lens); and gas supplying means (Fujie et al P in, H8) for locally supplying a gas (Fujie et al Col 5 line 12) to said at least one optical element, wherein said gas supplying means blows the gas toward one of the optical surfaces (Fujie et al top surface) of said at least one optical element, which is closest to the pattern, from the pattern side. However, Fujie et al does not disclose the gas supplying means directly blows the gas toward one of the optical surfaces of the at least one optical element. Tokuda et al discloses that a gas supplying means (Tokuda et al 32Aa) should directly blow gas toward an optical surface (Tokuda et al 15a) of an optical element (Tokuda et al 15) because it assists in maintaining an adjusted temperature on the surface of the optical element (Tokuda et al Col 7 lines 15-30). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the gas supplying means of Fujie et al directly blow gas toward the optical surface of the optical element of Fujie et al because it would assist in maintaining an adjusted temperature on the surface of the optical element as disclosed by Tokuda et al.

Re clm 69: Fujie et al discloses the claimed invention as noted directly above. However, Fujie et al does not disclose that the gas supply means produces a laminar gas flow. Tokuda et al discloses that a gas flow (Fig 12 gas produced by element 130) over the surface of a lens (15A) should be a laminar gas flow (shown in Fig 12) to avoid air fluctuation (Col 2 line 37). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the gas supply means of Fujie et al provide a laminar gas flow to avoid air fluctuation as taught by Tokuda et al. Re clms 52,60,68,76: the combination system of Fujie et al and Tokuda et al is capable of performing the claimed method steps.

Response to Arguments

Applicant's arguments with respect to claims 45-76 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Note: No IDS has been filed in this case.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khaled Brown whose telephone number is 703-306-5738. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russell E. Adams can be reached on 703-308-2847. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

KB
December 9, 2002


RUSSELL ADAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800